MEMORANDUM

TO: Area Superintendents, Principals, and Building Administrators
FROM: Don Haydon, Executive Director, Finance and Operations
DATE: November 16, 1998
SUBJECT: Floor Covering Policy for New Construction and Floor Covering Replacement

The purpose of this memo is to provide you with a Facilities Department rationale for developing a floor covering policy for new construction and for the existing building’s floor system replacement. There are many issues that have surfaced that affect the selection of floor coverings. What I hope to provide in the following paragraphs is information and rationale for developing a policy for floor covering systems based on the function of the space. Essentially the key concerns are related to:

- IAQ
- Appearance
- Noise
- Maintenance
- Life cycle cost

Indoor Air Quality (IAQ) - There are several IAQ concerns that are related to carpeting in the school setting. One concern pertains to the initial installation and the potential for volatile organic compound (VOC) offgassing. The carpet manufacturers have been very progressive in changing the manufacturing process to reduce the amount of VOC’s used in the production of carpet. This has significantly reduced the potential for offgassing when new carpet is installed. With good ventilation during and after installation, VOC concentrations are greatly reduced within the first 72 hour following installation. The main source of VOC’s is now more related to the adhesives that are used to fasten the carpet. Minneapolis Public Schools (MPS) specifications now require water base adhesives to reduce the potential for VOC offgassing. The offgassing concerns are more episodic and may only be a short term concern if the space is occupied by staff or students that have known sensitivities/allergies to VOC’s. The more important issue pertaining to the use of carpet in classrooms may be the fact that the carpet acts as a sink for allergens to accumulate in over the long term. Allergens such as mold spores, pollens, dust, animal dander, dust mites, insect parts, and odors as well as bacteria may build up in the carpet and be responsible for IAQ concerns. We have purchased HEPA filter vacuum cleaners for each school to do a better job of cleaning the respirable particulate that may be allergenic to asthmatics. Current statistics indicate that approximately 1 in 10 children is asthmatic and that this ratio is higher within the African American population. In primary grades educators teach with the students sitting on the floor placing the child’s breathing zone closer to these potential allergens. Reductions in the use of carpeting in classrooms may be a practical intervention in reducing the number of asthmatic episodes and in reducing the incidence of respiratory illness in children and staff occupying the space.
Floor Covering Recommendation

Appearance - The use of classrooms and hallways has changed. The classrooms are currently used as a cafeteria in many of our schools. With the free and reduced meals program being expanded to provide breakfast, students are not able to eat in shifts in the cafeteria as they would for lunch. Consequently, students are eating in classrooms resulting in considerable spillage especially in the primary grades. Because the carpet is an absorbent material it can serve as a medium for mold growth and the spillage can be a source of food for insects and other vermin. The spillage of different juices has resulted in significant staining of the carpets in many classrooms creating a perception that the facility is not being well maintained. If we are going to continue to have children eat in the classrooms we need to consider using non-absorbent easily cleanable floor surfacing materials.

Noise - An argument that has been made by teaching staff which supports the use of carpet in classrooms has been based on its effect at reducing noise levels in the classroom and hallways. Carpet does attenuate foot traffic noise but is not very effective at attenuating room noise. There are many other surfacing materials that can be used to more effectively attenuate sound. There are ceiling tile and wall treatment products available that are more effective at attenuating sound. The use of these products should be considered in the design of new buildings and when major renovations are made. As an example, the HVAC projects that are projected to occur under alternative bond II will, in many cases, require modification to the ceilings. Suspended ceiling tile specifications could require better acoustical treatment for ceiling tile.

Maintenance - Operations budget has continually been cut resulting in reductions in the frequency with which carpets are deep cleaned and vacuumed. Plant operations can more effectively clean the building if the floors surfaces are constructed of non-absorbent materials.

Lifecycle cost - When purchasing floor coverings there needs to be more emphasis on life cycle cost versus first cost. The total cost of a floor covering material should be evaluated when the decision is made to install one material over another. Compare initial cost, maintenance cost and replacement cost.

The following policy will be used as the basis for determining the floor covering system for new construction and for replacement projects.

POLICY

- Carpet may be used in media center and selective administrative offices.
- In primary classrooms (K-2) it is appropriate to have carpet in the classroom based on the teaching technique. However, the carpeted area will not exceed 50 percent of the surface area in grades 1 and 2 or 65 percent of kindergarten. The remaining surface will be constructed from easily cleanable non-absorbent materials.
- All newly constructed classrooms and all classrooms (except K-2) in need of floor covering replacement will be constructed of non-absorbent easily cleanable materials.
- All new corridor systems, and corridor systems in need of floor covering replacement, will be constructed of easily cleanable non-absorbent materials.

If you have any questions or need additional information, please contact Facilities staff at your convenience.

cc: Clyde Kane
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    Mike Meyer
    David Richards
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